

Contents

Volume 122 1996

Roffler-Tarlov, S., Gibson Brown, J. J., Tarlov, E., Stolarov, J., Chapman, D. L., Alexiou, M. and Papeioannou, V. E.

Programmed cell death in the absence of c-Fos and c-Jun

Krizek, B. A. and Meyerowitz, E. M.

The *Arabidopsis* homeotic genes *APETALA3* and *PISTILLATA* are sufficient to provide the B class organ identity function

Wallin, J., Ebel, H., Neubüser, A., Wilting, J., Koseki, H. and Balling, R.

Pax1 is expressed during development of the thymus epithelium and is required for normal T-cell maturation

DeSimone, S., Coelho, C., Roy, S., VijayRaghavan, K. and White, K.

ERECT WING, the *Drosophila* member of a family of DNA binding proteins is required in imaginal myoblasts for flight muscle development

Hermesz, E., Mackem, S. and Mahon, K. A.

Rpx: a novel anterior-restricted homeobox gene progressively activated in the prechordal plate, anterior neural plate and Rathke's pouch of the mouse embryo

Sweeney, C., Murphy, M., Kubelka, M., Fawcett, S. E., Hawkins, C. F., Wolgemuth, D. J. and Cartington, M.

A distinct cyclin A is expressed in germ cells in the mouse

Golden, J. A. and Cepko, C. L.

Clones in the chick diencephalon contain multiple cell types and siblings are widely dispersed

Spörle, R., Günther, T., Struwe, M. and Schughart, K.

Severe defects in the formation of epaxial musculature in *open brain (ob)* mutant mouse embryos

Laux, T., Mayer, K. F. X., Berger, J. and Jürgens, G.

The *WUSCHEL* gene is required for shoot and floral meristem integrity in *Arabidopsis*

Hoskins, R., Hajnal, A. F., Harp, S. A. and Kim, S. K.

The *C. elegans* vulval induction gene *lin-2* encodes a

member of the MAGUK family of cell junction proteins

Levi, G., Topilko, P., Schneider-Maunoury, S., Lasagna, M., Mantero, S., Cancedda, R. and Charnay, P.

Defective bone formation in *Krox-20* mutant mice

Vaahokari, A., Åberg, T. and Thesleff, I.

Apoptosis in the developing tooth: association with an embryonic signaling center and suppression by EGF and FGF-4

Vincent, S., Vonesch, J.-L. and Giangrande, A.

glide directs glial fate commitment and cell fate switch between neurones and glia

Grass, S., Arnold, H.-H. and Braun, T.

Alterations in somite patterning of *Myf-5*-deficient mice: a possible role for FGF-4 and FGF-6

Gage, P. J., Roller, M. L., Saunders, T. L., Scarlett, L. M. and Camper, S. A.

Anterior pituitary cells defective in the cell-autonomous factor, *df*, undergo cell lineage specification but not expansion

Heitzler, P., Bourouis, M., Ruel, L., Carteret, C. and Simpson, P.

Genes of the *Enhancer of split* and *achaete-scute* complexes are required for a regulatory loop between *Notch* and *Delta* during lateral signalling in *Drosophila*

161-171

Mallo, M. and Gridley, T.

Development of the mammalian ear: coordinate regulation of formation of the tympanic ring and the external acoustic meatus

173-179

Lund, L. R., Rømer, J., Thomasset, N., Solberg, H., Pyke, C., Bissell, M. J., Danø, K. and Werb, Z.

Two distinct phases of apoptosis in mammary gland involution: proteinase-independent and -dependent pathways

181-193

Hyatt, G. A., Schmitt, E. A., Marsh-Armstrong, N., McCaffery, P., Dräger, U. C. and Dowling, J. E.

Retinoic acid establishes ventral retinal characteristics

195-204

Arnoldi, D. N., Barolo, S., Levine, M. and Small, S.

The eve stripe 2 enhancer employs multiple modes of transcriptional synergy

205-214

Pesce, M., Canipari, R., Ferri, G.-L., Siracusa, G. and De Felici, M.

Pituitary adenylate cyclase-activating polypeptide (PACAP) stimulates adenylyl cyclase and promotes proliferation of mouse primordial germ cells

215-221

Golembio, M., Schweitzer, R., Freeman, M. and Shilo, B.-Z.

argos transcription is induced by the *Drosophila* EGF receptor pathway to form an inhibitory feedback loop

223-230

Spence, M. S., Yip, J. and Erickson, C. A.

The dorsal neural tube organizes the dermamyotome and induces axial myocytes in the avian embryo

231-241

Ang, S.-L., Jin, O., Rhinn, M., Daigle, N., Stevenson, L. and Rossant, J.

A targeted mouse *Otx2* mutation leads to severe defects in gastrulation and formation of axial mesoderm and to deletion of rostral brain

243-252

Ruffins, S. W. and Ettensohn, C. A.

A fate map of the vegetal plate of the sea urchin (*Lytechinus variegatus*) mesenchyme blastula

253-263

McLaughlin, K. J., Szabó, P., Haegel, H. and Mann, J. R.

Mouse embryos with paternal duplication of an imprinted chromosome 7 region die at midgestation and lack placental spongiotrophoblast

265-270

Weinberg, E. S., Allende, M. L., Kelly, C. S.,

Abdelhamid, A., Murakami, T., Andermann, P., Doerre, O. G., Grunwald, D. J. and Riggelman, B.

Developmental regulation of zebrafish *MyoD* in wild-type, *no tail* and *spadetail* embryos

271-280

Hawkins, N. C., Thorpe, J. and Schüpbach, T.

encore, a gene required for the regulation of germ line mitosis and oocyte differentiation during *Drosophila* oogenesis

281-290

ii Contents

Itoh, N., Mima, T. and Mikawa, T.		Fromental-Ramain, C., Warot, X., Lakkaraju, S., Favier, B., Haack, H., Birling, C., Dierich, A., Dollé, P. and Champon, P.	
Loss of fibroblast growth factor receptors is necessary for terminal differentiation of embryonic limb muscle	291-300	Specific and redundant functions of the paralogous <i>Hoxa-9</i> and <i>Hoxd-9</i> genes in forelimb and axial skeleton patterning	461-472
Ockel, M., Lewin, G. R. and Barde, Y.-A.		Graham, A. and Lumsden, A.	
In vivo effects of neurotrophin-3 during sensory neurogenesis	301-307	Interactions between rhombomeres modulate <i>Krox-20</i> and <i>follistatin</i> expression in the chick embryo hindbrain	473-480
Blaugrund, E., Pham, T. D., Tennyson, V. M., Lo, L., Sommer, L., Anderson, D. J. and Gershon, M. D.		Smith, L. G., Hake, S. and Sylvester, A. W.	
Distinct subpopulations of enteric neuronal progenitors defined by time of development, sympathetic adrenal lineage markers and <i>Mash-1</i> -dependence	309-320	The <i>tangled-1</i> mutation alters cell division orientations throughout maize leaf development without altering leaf shape	481-489
Notenboom, R. G. E., de Boer, P. A. J., Moorman, A. F. M. and Lamers, W. H.		ElShamy, W. M., Linnarsson, S., Lee, K.-F., Jaenisch, R. and Ernfors, P.	
The establishment of the hepatic architecture is a prerequisite for the development of a lobular pattern of gene expression	321-332	Prenatal and postnatal requirements of NT-3 for sympathetic neuroblast survival and innervation of specific targets	491-500
Kirchhamer, C. V. and Davidson, E. H.		Raible, D. W. and Eisen, J. S.	
Spatial and temporal information processing in the sea urchin embryo: modular and intramodular organization of the <i>Cytilia</i> gene <i>cis</i> -regulatory system	333-348	Regulative interactions in zebrafish neural crest	501-507
Durbec, P. L., Larsson-Bloemberg, L. B., Schuchardt, A., Costantini, F. and Pachnis, V.		Collignon, J., Sockanathan, S., Hacker, A., Cohen-Tannoudji, M., Norris, D., Rastan, S., Stevanovic, M., Goodfellow, P. N. and Lovell-Badge, R.	
Common origin and developmental dependence on <i>c-ret</i> of subsets of enteric and sympathetic neuroblasts	349-358	A comparison of the properties of <i>Sox-3</i> with <i>Sry</i> and two related genes, <i>Sox-1</i> and <i>Sox-2</i>	509-520
de Celis, J. F., Garcia-Bellido, A. and Bray, S. J.		Vlahou, A., Gonzalez-Rimbau, M. and Flytzanis, C. N.	
Activation and function of <i>Notch</i> at the dorsal-ventral boundary of the wing imaginal disc	359-369	Maternal mRNA encoding the orphan steroid receptor SpCOUP-TF is localized in sea urchin eggs	521-526
Cove, D. J., Quatrano, R. S. and Hartmann, E.		Higashijima, S.-i., Shishido, E., Matsuzaki, M. and Saigo, K.	
The alignment of the axis of asymmetry in regenerating protoplasts of the moss, <i>Ceratodon purpureus</i> , is determined independently of axis polarity	371-379	<i>eagle</i> , a member of the steroid receptor gene superfamily, is expressed in a subset of neuroblasts and regulates the fate of their putative progeny in the <i>Drosophila</i> CNS	527-536
Jesuthasan, S.		Ogura, T., Alvarez, I. S., Vogel, A., Rodríguez, C., Evans, R. M. and Izpisúa-Belmonte, J. C.	
Contact inhibition/collapse and pathfinding of neural crest cells in the zebrafish trunk	381-389	Evidence that <i>Shh</i> cooperates with a retinoic acid inducible co-factor to establish ZPA-like activity	537-542
Browning, H. and Strome, S.		Nonchev, S., Vesque, C., Maconochie, M., Seitanidou, T., Ariza-McNaughton, L., Frain, M., Marshall, H., Sham, M. H., Krumlauf, R. and Charnay, P.	
A sperm-supplied factor required for embryogenesis in <i>C. elegans</i>	391-404	Segmental expression of <i>Hoxa-2</i> in the hindbrain is directly regulated by <i>Krox-20</i>	543-554
Oka, C., Nakano, T., Wakeham, A., Luis de la Pompa, J., Mori, C., Sakai, T., Okazaki, S., Kawauchi, M., Shiota, K., Mak, T. W. and Honjo, T.		Yang, X. W., Zhong, R. and Heintz, N.	
Authors' correction to <i>Development</i> 121, 3291-3301.	405-407	Granule cell specification in the developing mouse brain as defined by expression of the zinc finger transcription factor RU49	555-566
Lee, T., Feig, L. and Montell, D. J.		Seaver, E. C., Carpenter, E. M. and Bastiani, M. J.	
Two distinct roles for Ras in a developmentally regulated cell migration	409-418	REGA-1 is a GPI-linked member of the immunoglobulin superfamily present on restricted regions of sheath cell processes in grasshopper	567-578
Sheng, Z., Pennica, D., Wood, W. I. and Chien, K. R.		Lieberfarb, M. E., Chu, T., Wreden, C., Theurkauf, W., Gergen, J. P. and Strickland, S.	
Cardiotrophin-1 displays early expression in the murine heart tube and promotes cardiac myocyte survival	419-428	Mutations that perturb poly(A)-dependent maternal mRNA activation block the initiation of development	579-588
Cossu, G., Kelly, R., Tajbakhsh, S., Di Donna, S., Vivarelli, E. and Buckingham, M.		Hoshino, M., Suzuki, E., Nabeshima, Y.-i. and Hama, C.	
Activation of different myogenic pathways: myf-5 is induced by the neural tube and MyoD by the dorsal ectoderm in mouse paraxial mesoderm	429-437	Hikaru genki protein is secreted into synaptic clefts from an early stage of synapse formation in <i>Drosophila</i>	589-597
Gittes, G. K., Galante, P. E., Hanahan, D., Rutter, W. J. and Debas, H. T.		Bissen, S. T. and Smith, C. M.	
Lineage-specific morphogenesis in the developing pancreas: role of mesenchymal factors	439-447	Unequal cleavage in leech embryos: zygotic transcription is required for correct spindle orientation in a subset of early blastomeres	599-606
Favier, B., Rijli, F. M., Fromental-Ramain, C., Fraulob, V., Champon, P. and Dollé, P.		McClay, D. R. and Logan, C. Y.	
Functional cooperation between the non-paralogous genes <i>Hoxa-10</i> and <i>Hoxd-11</i> in the developing forelimb and axial skeleton	449-460	Regulative capacity of the archenteron during gastrulation in the sea urchin	607-616

Baker, R. and Schubiger, G.		Late effects of retinoic acid on neural crest and aspects of rhombomere identity	783-793
Autonomous and nonautonomous Notch functions for embryonic muscle and epidermis development in <i>Drosophila</i>	617-626		
Song, D.-L., Chalepkis, G., Gruss, P. and Joyner, A. L.		Grbić, M., Nagy, L. M., Carroll, S. B. and Strand, M.	
Two Pax-binding sites are required for early embryonic brain expression of an <i>Engrailed-2</i> transgene	627-635	Polyembryonic development: insect pattern formation in a cellularized environment	795-804
Raab, G., Kover, K., Paria, B. C., Dey, S. K., Ezzell, R. M. and Klagsbrun, M.		Sulston, I. A. and Anderson, K. V.	
Mouse preimplantation blastocysts adhere to cells expressing the transmembrane form of heparin-binding EGF-like growth factor	637-645	Embryonic patterning mutants in <i>Tribolium castaneum</i>	805-814
Maeda, N. and Noda, M.		Verlhac, M.-H., Kubik, J. Z., Weber, M., Géraud, G., Colledge, W. H., Evans, M. J. and Maro, B.	
6B4 proteoglycan/phosphacan is a repulsive substratum but promotes morphological differentiation of cortical neurons	647-658	Mos is required for MAP kinase activation and is involved in microtubule organization during meiotic maturation in the mouse	815-822
Matise, M. P. and Lance-Jones, C.		Kanatsu, M. and Nishikawa, S.-I.	
A critical period for the specification of motor pools in the chick lumbosacral spinal cord	659-669	In vitro analysis of epiblast tissue potency for hematopoietic cell differentiation	823-830
Wightman, B., Clark, S. G., Taskar, A. M., Forrester, W. C., Maricq, A. V., Bargmann, C. I. and Garriga, G.		Mansouri, A., Stoykova, A., Torres, M. and Gruss, P.	
The <i>C. elegans</i> gene <i>vab-8</i> guides posteriorly directed axon outgrowth and cell migration	671-682	Dysgenesis of cephalic neural crest derivatives in <i>Pax7</i> ^{+/−} mutant mice	831-838
Desnos, T., Orbović, V., Bellini, C., Kronenberger, J., Caboche, M., Traas, J. and Höfte, H.		Adam, G. I. R., Cui, H., Miller, S. J., Flam, F. and Ohlsson, R.	
<i>Procuste1</i> mutants identify two distinct genetic pathways controlling hypocotyl cell elongation, respectively in dark- and light-grown <i>Arabidopsis</i> seedlings	683-693	Allele-specific in situ hybridization (ASISH) analysis: a novel technique which resolves differential allelic usage of <i>H19</i> within the same cell lineage during human placental development	839-847
Middleton, G., Nunez, G. and Davies, A. M.		Yu, X., Hoppler, S., Eresh, S. and Bienz, M.	
Bax promotes neuronal survival and antagonises the survival effects of neurotrophic factors	695-701	<i>decapentaplegic</i> , a target gene of the wingless signalling pathway in the <i>Drosophila</i> midgut	849-858
Berg, L. K., Chen, S. W. and Wessel, G. M.		Marcus, R. C., Wang, L.-C. and Mason, C. A.	
An extracellular matrix molecule that is selectively expressed during development is important for gastrulation in the sea urchin embryo	703-713	Retinal axon divergence in the optic chiasm: midline cells are unaffected by the albino mutation	859-868
McKay, S. E., Garner, A., Caldero, J., Tucker, R. P., Large, T. and Oppenheim, R. W.		Launay, C., Fromentoux, V., Shi, D.-L. and Boucaut, J.-C.	
The expression of <i>trkB</i> and p75 and the role of BDNF in the developing neuromuscular system of the chick embryo	715-724	A truncated FGF receptor blocks neural induction by endogenous <i>Xenopus</i> inducers	869-880
Lecoin, L., Gabella, G. and Le Douarin, N.		Yeom, Y. I., Fuhrmann, G., Ovitt, C. E., Brehm, A., Ohbo, K., Gross, M., Hübner, K. and Schöler, H. R.	
Origin of the c-kit-positive interstitial cells in the avian bowe	725-733	Germline regulatory element of Oct-4 specific for the totipotent cycle of embryonal cells	881-894
Alexandre, D., Clarke, J. D. W., Oxtoby, E., Yan, Y.-L., Jowett, T. and Holder, N.		Saldivar, J. R., Krull, C. E., Krumlauf, R., Ariza-McNaughton, L. and Bronner-Fraser, M.	
Ectopic expression of <i>Hoxa-1</i> in the zebrafish alters the fate of the mandibular arch neural crest and phenocopies a retinoic acid-induced phenotype	735-746	Rhombomere of origin determines autonomous versus environmentally regulated expression of <i>Hoxa3</i> in the avian embryo	895-904
Hart, K. and Bienz, M.		Fukushima, M., Nakamura, M., Ohta, K., Okamura, R., Negi, A. and Tanaka, H.	
A test for cell autonomy, based on di-cistronic messenger translation	747-751	Regional specification of motoneurons along the anterior-posterior axis is independent of the notochord	905-914
Jermyn, K., Traynor, D. and Williams, J.		Halfter, W., Schurer, B., Hasselhorn, H.-M., Christ, B., Gimpel, E. and Epperlein, H. H.	
The initiation of basal disc formation in <i>Dictyostelium discoideum</i> is an early event in culmination	753-760	An ovomucin-like protein on the surface of migrating primordial germ cells of the chick and rat	915-923
Dormann, D., Siegert, F. and Weijer, C. J.		Tiemeyer, M. and Goodman, C. S.	
Analysis of cell movement during the culmination phase of <i>Dictyostelium</i> development	761-769	Gliolectin is a novel carbohydrate-binding protein expressed by a subset of glia in the embryonic <i>Drosophila</i> nervous system	925-936
Mangan, M. E. and Olmsted, J. B.		Clark, K. A. and McKearin, D. M.	
A muscle-specific variant of microtubule-associated protein 4 (MAP4) is required in myogenesis	771-781	The <i>Drosophila stonewall</i> gene encodes a putative transcription factor essential for germ cell development	937-949
Gale, E., Prince, V., Lumsden, A., Clarke, J., Holder, N. and Maden, M.		Grawe, F., Wodarz, A., Lee, B., Knust, E. and Skaer, H.	
		The <i>Drosophila</i> genes <i>crumbs</i> and <i>stardust</i> are involved in the biogenesis of adherens junctions	951-959

Park, W. J., Liu, J., Sharp, E. J. and Adler, P. N.		Patel, K., Nittenberg, R., D'Souza, D., Irving, C., Burt, D., Wilkinson, D. G. and Tickle, C.	
The <i>Drosophila</i> tissue polarity gene <i>intumens</i> acts cell autonomously and encodes a novel protein	961-969	Expression and regulation of <i>Cek-8</i> , a cell to cell signalling receptor, in developing chick limb buds	1147-1155
Bopp, D., Calhoun, G., Horabin, J. I., Samuels, M. and Schedl, P.		Upchurch, B. H., Fung, B. P., Rindi, G., Ronco, A. and Leiter, A. B.	
Sex-specific control of <i>Sex-lethal</i> is a conserved mechanism for sex determination in the genus <i>Drosophila</i>	971-982	Peptide YY expression is an early event in colonic endocrine cell differentiation: evidence from normal and transgenic mice	1157-1163
Offield, M. F., Jetton, T. L., Labosky, P. A., Ray, M., Stein, R., Magnuson, M. A., Hogan, B. L. M. and Wright, C. V. E.		Blaschke, A. J., Staley, K. and Chun, J.	
PDX-1 is required for pancreatic outgrowth and differentiation of the rostral duodenum	983-995	Widespread programmed cell death in proliferative and postmitotic regions of the fetal cerebral cortex	1165-1174
Larkin, J. C., Young, N., Prigge, M. and Marks, M. D.		Davis, A. P. and Capecchi, M. R.	
The control of trichome spacing and number in <i>Arabidopsis</i>	997-1005	A mutational analysis of the 5' <i>HoxD</i> genes: dissection of genetic interactions during limb development in the mouse	1175-1185
Henry, G. L., Brivanlou, I. H., Kessler, D. S., Hemmati-Brivanlou, A. and Melton, D. A.		Runft, L. L. and Mandoli, D. F.	
TGF- β signals and a prepattern in <i>Xenopus laevis</i> endodermal development	1007-1015	Coordination of cellular events that precede reproductive onset in <i>Acetabularia acetabulum</i> : evidence for a 'loop' in development	1187-1194
Daston, G., Lamar, E., Olivier, M. and Goulding, M.		Ma, X., Yuan, D., Diepold, K., Scarborough, T. and Ma, J.	
<i>Pax-3</i> is necessary for migration but not differentiation of limb muscle precursors in the mouse	1017-1027	The <i>Drosophila</i> morphogenetic protein Bicoid binds DNA cooperatively	1195-1206
Dent, M. A. R., Raisman, G. and Lai, F. A.		Yoshida, H., Kunisada, T., Kusakabe, M., Nishikawa, S. and Nishikawa, S.-I.	
Expression of type 1 inositol 1,4,5-trisphosphate receptor during axogenesis and synaptic contact in the central and peripheral nervous system of developing rat	1029-1039	Distinct stages of melanocyte differentiation revealed by analysis of nonuniform pigmentation patterns	1207-1214
Furner, I. J., Ainscough, J. F. X., Pumfrey, J. A. and Petty, L. M.		Hadwiger, J. A., Natarajan, K. and Firtel, R. A.	
Clonal analysis of the late flowering <i>fca</i> mutant of <i>Arabidopsis thaliana</i> : cell fate and cell autonomy	1041-1050	Mutations in the <i>Dictyostelium</i> heterotrimeric G protein α subunit G α 5 alter the kinetics of tip morphogenesis	1215-1224
Hayashi, S.		Marigo, V., Scott, M. P., Johnson, R. L., Goodrich, L. V. and Tabin, C. J.	
A Cdc2 dependent checkpoint maintains diploidy in <i>Drosophila</i>	1051-1058	Conservation in <i>hedgehog</i> signaling: induction of a chicken <i>patched</i> homolog by <i>Sonic hedgehog</i> in the developing limb	1225-1233
Fuse, N., Hirose, S. and Hayashi, S.		Koshimizu, U., Taga, T., Watanabe, M., Saito, M., Shirayoshi, Y., Kishimoto, T. and Nakatsuji, N.	
Determination of wing cell fate by the <i>escargot</i> and <i>snail</i> genes in <i>Drosophila</i>	1059-1067	Functional requirement of gp130-mediated signaling for growth and survival of mouse primordial germ cells in vitro and derivation of embryonic germ (EG) cells	1235-1242
Yuh, C.-H. and Davidson, E. H.		Tabata, M. J., Kim, K., Liu, J.-G., Yamashita, K., Matsumura, T., Kato, J., Iwamoto, M., Wakisaka, S., Matsumoto, K., Nakamura, T., Kumegawa, M. and Kurisu, K.	
Modular <i>cis</i> -regulatory organization of <i>Endo16</i> , a gut-specific gene of the sea urchin embryo	1069-1082	Hepatocyte growth factor is involved in the morphogenesis of tooth germ in murine molars	1243-1251
Bokor, P. and DiNardo, S.		Masucci, J. D., Rerie, W. G., Foreman, D. R., Zhang, M., Galway, M. E., Marks, M. D. and Schiefelbein, J. W.	
The roles of <i>hedgehog</i> , <i>wingless</i> and <i>lines</i> in patterning the dorsal epidermis in <i>Drosophila</i>	1083-1092	The homeobox gene <i>GLABRA 2</i> is required for position-dependent cell differentiation in the root epidermis of <i>Arabidopsis thaliana</i>	1253-1260
Bossinger, G. and Smyth, D. R.		Running, M. P. and Meyerowitz, E. M.	
Initiation patterns of flower and floral organ development in <i>Arabidopsis thaliana</i>	1093-1102	Mutations in the <i>PERIANTHIA</i> gene of <i>Arabidopsis</i> specifically alter floral organ number and initiation pattern	1261-1269
Barlow, L. A., Chien, C.-B. and Northcutt, R. G.		Nishida, H.	
Embryonic taste buds develop in the absence of innervation	1103-1111	Vegetal egg cytoplasm promotes gastrulation and is responsible for specification of vegetal blastomeres in embryos of the ascidian <i>Halocynthia roretzi</i>	1271-1279
Bhat, K. M., Farkas, G., Karch, F., Gyurkovics, H., Gausz, J. and Schedl, P.		Larabell, C. A., Rowning, B. A., Wells, J., Wu, M. and Gerhart, J. C.	
The GAGA factor is required in the early <i>Drosophila</i> embryo not only for transcriptional regulation but also for nuclear division	1113-1124	Confocal microscopy analysis of living <i>Xenopus</i> eggs and the mechanism of cortical rotation	1281-1289
Forbes, A. J., Lin, H., Ingham, P. W. and Spradling, A. C.			
<i>hedgehog</i> is required for the proliferation and specification of ovarian somatic cells prior to egg chamber formation in <i>Drosophila</i>	1125-1135		
Allard, J. D., Chang, H. C., Herbst, R., McNeill, H. and Simon, M. A.			
The SH2-containing tyrosine phosphatase corkscrew is required during signaling by sevenless, Ras1 and Raf	1137-1146		

Albanesi, C., Geremia, R., Giorgio, M., Dolci, S., Sette, C. and Rossi, P.		Analysis of <i>Hox</i> gene expression in the chick limb bud	1449-1466
A cell- and developmental stage-specific promoter drives the expression of a truncated <i>c-kit</i> protein during mouse spermatid elongation	1291-1302	Goldstein, B. and Hird, S. N.	
Hird, S. N., Paulsen, J. E. and Strome, S.		Specification of the anteroposterior axis in <i>C. elegans</i>	1467-1474
Segregation of germ granules in living <i>Caenorhabditis elegans</i> embryos: cell-type-specific mechanisms for cytoplasmic localisation	1303-1312	Pownall, M. E., Strunk, K. E. and Emerson Jr., C. P.	
Shih, J. and Fraser, S. E.		Notochord signals control the transcriptional cascade of myogenic bHLH genes in somites of quail embryos	1475-1488
Characterizing the zebrafish organizer: microsurgical analysis at the early-shield stage	1313-1322	Mao, C.-A., Wikramanayake, A. H., Gan, L., Chuang, C.-K., Summers, R. G. and Klein, W. H.	
Dealy, C. N. and Kosher, R. A.		Altering cell fates in sea urchin embryos by overexpressing SpOtx, an orthodenticle-related protein	1489-1498
IGF-I, insulin and FGFs induce outgrowth of the limb buds of amelie mutant chick embryos	1323-1330	Edwards, K. A. and Kiehart, D. P.	
Lin, T.-Y., Viswanathan, S., Wood, C., Wilson, P. G., Wolf, N. and Fuller, M. T.		<i>Drosophila</i> nonmuscle myosin II has multiple essential roles in imaginal disc and egg chamber morphogenesis	1499-1511
Coordinate developmental control of the meiotic cell cycle and spermatid differentiation in <i>Drosophila</i> males	1331-1341	Akasaka, T., Kanno, M., Balling, R., Mieza, M. A., Taniguchi, M. and Koseki, H.	
Frank, L. H. and Rushlow, C.		A role for <i>mel-18</i> , a Polycomb group-related vertebrate gene, during the anteroposterior specification of the axial skeleton	1513-1522
A group of genes required for maintenance of the amniocerosa tissue in <i>Drosophila</i>	1343-1352	Psychoyos, D. and Stern, C. D.	
Guillemin, K., Groppe, J., Dücker, K., Treisman, R., Hafen, E., Affolter, M. and Krasnow, M. A.		Fates and migratory routes of primitive streak cells in the chick embryo	1523-1534
The pruned gene encodes the <i>Drosophila</i> serum response factor and regulates cytoplasmic outgrowth during terminal branching of the tracheal system	1353-1362	Bradley, D., Vincent, C., Carpenter, R. and Coen, E.	
Pardanaud, L., Luton, D., Prigent, M., Bourcheix, L.-M., Catala, M. and Dieterlen-Liévre, F.		Pathways for iridescence and floral induction in <i>Antirrhinum</i>	1535-1544
Two distinct endothelial lineages in ontogeny, one of them related to hemopoiesis	1363-1371	Jones, C. M., Dale, L., Hogan, B. L. M., Wright, C. V. E. and Smith, J. C.	
Christensen, S., Kodoyianni, V., Bosenberg, M., Friedman, L. and Kimble, J.		Bone morphogenetic protein-4 (BMP-4) acts during gastrula stages to cause ventralization of <i>Xenopus</i> embryos	1545-1554
<i>lag-1</i> , a gene required for <i>lin-12</i> and <i>glp-1</i> signaling in <i>Caenorhabditis elegans</i> , is homologous to human CBF1 and <i>Drosophila</i> Su(H)	1373-1383	Twombly, V., Blackman, R. K., Jin, H., Graff, J. M., Padgett, R. W. and Gelbart, W. M.	
Helms, J. A., Kim, C. H., Eichele, G. and Thaller, C.		The TGF- β signaling pathway is essential for <i>Drosophila</i> oogenesis	1555-1565
Retinoic acid signaling is required during early chick limb development	1385-1394	Clark, S. E., Jacobsen, S. E., Levin, J. Z. and Meyerowitz, E. M.	
Samakovlis, C., Hacohen, N., Manning, G., Sutherland, D. C., Guillemin, K. and Krasnow, M. A.		The CLAVATA and SHOOT MERISTEMLESS loci competitively regulate meristem activity in <i>Arabidopsis</i>	1567-1575
Development of the <i>Drosophila</i> tracheal system occurs by a series of morphologically distinct but genetically coupled branching events	1395-1407	Zhu, A. and Kuziora, M. A.	
Ahlgren, U., Jonsson, J. and Edlund, H.		Functional domains in the Deformed protein	1577-1587
The morphogenesis of the pancreatic mesenchyme is uncoupled from that of the pancreatic epithelium in IPF1/PDX1-deficient mice	1409-1416	Tsuge, T., Tsukaya, H. and Uchimiya, H.	
Schilling, T. F., Walker, C. and Kimmel, C. B.		Two independent and polarized processes of cell elongation regulate leaf blade expansion in <i>Arabidopsis thaliana</i> (L.) Heynh.	1589-1600
The <i>chinless</i> mutation and neural crest cell interactions in zebrafish jaw development	1417-1426	Lundquist, E. A., Herman, R. K., Rogalski, T. M., Mullen, G. P., Moerman, D. G. and Shaw, J. E.	
Birmingham-McDonogh, O., McCabe, K. L. and Reh, T. A.		The <i>mec-8</i> gene of <i>C. elegans</i> encodes a protein with two RNA recognition motifs and regulates alternative splicing of <i>unc-52</i> transcripts	1601-1610
Effects of GGF/neuregulins on neuronal survival and neurite outgrowth correlate with erbB2/neu expression in developing rat retina	1427-1438	Foty, R. A., Pfleger, C. M., Forgacs, G. and Steinberg, M. S.	
Rehen, S. K., Varella, M. H., Freitas, F. G., Moraes, M. O. and Linden, R.		Surface tensions of embryonic tissues predict their mutual envelopment behavior	1611-1620
Contrasting effects of protein synthesis inhibition and of cyclic AMP on apoptosis in the developing retina	1439-1448	Bornemann, D., Miller, E. and Simon, J.	
Nelson, C. E., Morgan, B. A., Burke, A. C., Laufer, E., DiMambro, E., Murtaugh, L. C., Gonzales, E., Tessarollo, L., Parada, L. F. and Tabin, C.		The <i>Drosophila</i> Polycomb group gene <i>Sex comb on midleg</i> (<i>Scm</i>) encodes a zinc finger protein with similarity to polyhomeotic protein	1621-1630
		Wilson, J. E., Connell, J. E. and Macdonald, P. M.	
		<i>aubergine</i> enhances <i>oskar</i> translation in the <i>Drosophila</i> ovary	1631-1639

Goriely, A., Stella, M., Coffinier, C., Kessler, D., Mailhos, C., Dessain, S. and Desplan, C.	An functional homologue of <i>goosecoid</i> in <i>Drosophila</i>	1641-1650	An HF-1a/ HF-1b/MEF-2 combinatorial element confers cardiac ventricular specificity and establishes an anterior-posterior gradient of expression	1799-1809	
Salser, S. J. and Kenyon, C.	<i>A. elegans</i> Hox gene switches on, off, on and off again to regulate proliferation, differentiation and morphogenesis	1651-1661	Carland, F. M. and McHale, N. A.	<i>LOP1</i> : a gene involved in auxin transport and vascular patterning in <i>Arabidopsis</i>	1811-1819
Campanelli, J. T., Gayer, G. G. and Scheller, R. H.	Alternative RNA splicing that determines agrin activity regulates binding to heparin and α -dystroglycan	1663-1672	Duprez, D. M., Kostakopoulou, K., Francis-West, P. H., Tickle, C. and Brickell, P. M.	Activation of <i>Fgf-4</i> and <i>HoxD</i> gene expression by BMP-2 expressing cells in the developing chick limb	1821-1828
Gho, M., Lecourtois, M., Géraud, G., Posakony, J. W. and Schweisguth, F.	Subcellular localization of Suppressor of Hairless in <i>Drosophila</i> sense organ cells during Notch signalling	1673-1682	Holland, L. Z. and Holland, N. D.	Expression of <i>AmphiHox-1</i> and <i>AmphiPax-1</i> in amphioxus embryos treated with retinoic acid: insights into evolution and patterning of the chordate nerve cord and pharynx	1829-1838
Scanlon, M. J., Schneeberger, R. G. and Freeling, M.	The maize mutant <i>narrow sheath</i> fails to establish leaf margin identity in a meristematic domain	1683-1691	Huang, F. Z. and Weisblat, D. A.	Cell fate determination in an annelid equivalence group	1839-1847
Bellusci, S., Henderson, R., Winnier, G., Oikawa, T. and Hogan, B. L. M.	Evidence from normal expression and targeted misexpression that <i>Bone Morphogenetic Protein-4</i> (<i>Bmp-4</i>) plays a role in mouse embryonic lung morphogenesis	1693-1702	Royer, J. and Finkelstein, R.	<i>hedgehog</i> , <i>wingless</i> and <i>orthodenticle</i> specify adult head development in <i>Drosophila</i>	1849-1858
Furuchi, T., Masuko, K., Nishimune, Y., Obinata, M. and Matsui, Y.	Inhibition of testicular germ cell apoptosis and differentiation in mice misexpressing <i>Bcl-2</i> in spermatogonia	1703-1709	Horowitz, H. and Berg, C. A.	The <i>Drosophila pipsqueak</i> gene encodes a nuclear BTB-domain-containing protein required early in oogenesis	1859-1871
Schmidt, J. E., von Dassow, G. and Kimelman, D.	Regulation of dorsal-ventral patterning: the ventralizing effects of the novel <i>Xenopus</i> homeobox gene <i>Vox</i>	1711-1721	Sagerström, C. G., Grinblat, Y. and Sive, H.	Anteroposterior patterning in the zebrafish, <i>Danio rerio</i> : an explant assay reveals inductive and suppressive cell interactions	1873-1883
Alexander, C. M., Hansell, E. J., Behrendtsen, O., Flannery, M. L., Krishnani, N. S., Hawkes, S. P. and Werb, Z.	Expression and function of matrix metalloproteinases and their inhibitors at the maternal-embryonic boundary during mouse embryo implantation	1723-1736	Smith, C. M., Lans, D. and Weisblat, D. A.	Cellular mechanisms of epiboly in leech embryos	1885-1894
Vogel, A., Rodriguez, C. and Izpisúa-Belmonte, J.-C.	Involvement of FGF-8 in initiation, outgrowth and patterning of the vertebrate limb	1737-1750	Morrison, A., Moroni, M. C., Ariza-McNaughton, L., Krumlauf, R. and Mavilio, F.	In vitro and transgenic analysis of a human <i>HOXD4</i> retinoid-responsive enhancer	1895-1907
Kaestner, K. H., Bleckmann, S. C., Monaghan, A. P., Schlöndorff, J., Mincheva, A., Lichter, P. and Schütz, G.	Clustered arrangement of winged helix genes <i>fkh-6</i> and <i>MFH-1</i> : possible implications for mesoderm development	1751-1758	Kuo, Y. M., Jones, N., Zhou, B., Panzer, S., Larson, V. and Beckendorf, S. K.	Salivary duct determination in <i>Drosophila</i> : roles of the EGF receptor signaling pathway and the transcription factors Fork head and Trachealless	1909-1917
Schuger, L., Johnson, G. R., Gilbride, K., Plowman, G. D. and Mandel, R.	Amphiregulin in lung branching morphogenesis: interaction with heparan sulfate proteoglycan modulates cell proliferation	1759-1767	Schuchardt, A., D'Agati, V., Pachnis, V. and Costantini, F.	Renal agenesis and hypodysplasia in <i>ret-k^{-/-}</i> mutant mice result from defects in ureteric bud development	1919-1929
Hauptmann, G. and Gerster, T.	Complex expression of the <i>zp-50</i> pou gene in the embryonic zebrafish brain is altered by overexpression of <i>sonic hedgehog</i>	1769-1780	Reiter, C., Schimansky, T., Nie, Z. and Fischbach, K.-F.	Reorganization of membrane contacts prior to apoptosis in the <i>Drosophila</i> retina: the role of the IrreC-rst protein	1931-1940
Neumann, C. J. and Cohen, S. M.	Distinct mitogenic and cell fate specification functions of <i>wingless</i> in different regions of the wing	1781-1789	Hoffmeister, S. A. H.	Isolation and characterization of two new morphogenetically active peptides from <i>Hydra vulgaris</i>	1941-1948
Mickey, K. M., Mello, C. C., Montgomery, M. K., Fire, A. and Priess, J. R.	An inductive interaction in 4-cell stage <i>C. elegans</i> embryos involves APX-1 expression in the signalling cell	1791-1798	Seum, C., Spierer, A., Pauli, D., Szidonya, J., Reuter, G. and Spierer, P.	Position-effect variegation in <i>Drosophila</i> depends on the dose of the gene encoding the E2F transcriptional activator and cell cycle regulator	1949-1956
Ross, H. S., Navankasattusas, S., Harvey, R. P. and Chien, K. R.			Kalab, P., Kubliak, J. Z., Verlhac, M.-H., Colledge, W. H. and Maro, B.	Activation of p90 ^{rk} during meiotic maturation and first mitosis in mouse oocytes and eggs: MAP kinase-independent and -dependent activation	1957-1964
			Bianchi, L. M., Conover, J. C., Fritzsch, B., DeChiara, T., Lindsay, R. M. and Yancopoulos, G. D.		

Degeneration of vestibular neurons in late embryogenesis of both heterozygous and homozygous <i>BDNF</i> null mutant mice	1965-1973	Schmidt-Ullrich, R., Mémet, S., Lilienbaum, A., Feuillard, J., Raphaël, M. and Israël, A. NF-κB activity in transgenic mice: developmental regulation and tissue specificity	2117-2128
Weber, H., Holewa, B., Jones, E. A. and Ryffel, G. U. Mesoderm and endoderm differentiation in animal cap explants: identification of the HNF4-binding site as an activin A responsive element in the <i>Xenopus</i> HNF1 α promoter	1975-1984	Félix, M.-A. and Sternberg, P. W. Symmetry breakage in the development of one-armed gonads in nematodes	2129-2142
Roote, C. E. and Zusman, S. Alternatively spliced forms of the <i>Drosophila</i> α ps2 subunit of integrin are sufficient for viability and can replace the function of the α ps1 subunit of integrin in the retina	1985-1994	Wingate, R. J. T. and Lumsden, A. Persistence of rhombomeric organisation in the postsegmental hindbrain	2143-2152
Russo, G. L., Kyozuka, K., Antonazzo, L., Tosti, E. and Dale, B. Maturation Promoting Factor in ascidian oocytes is regulated by different intracellular signals at meiosis I and II	1995-2003	Wiersdorff, V., Leclut, T., Cohen, S. M. and Mlodzik, M. <i>Mad</i> acts downstream of Dpp receptors, revealing a differential requirement for <i>dpp</i> signaling in initiation and propagation of morphogenesis in the <i>Drosophila</i> eye	2153-2162
Yoshida, S., Marikawa, Y. and Satoh, N. <i>posterior end mark</i> , a novel maternal gene encoding a localized factor in the ascidian embryo	2005-2012	Yang, X.-M., Vogan, K., Gros, P. and Park, M. Expression of the <i>met</i> receptor tyrosine kinase in muscle progenitor cells in somites and limbs is absent in <i>Splotch</i> mice	2163-2171
Phelps, P. E., Barber, R. P. and Vaughn, J. E. Nonradial migration of interneurons can be experimentally altered in spinal cord slice cultures	2013-2022	Grondona, J. M., Kastner, P., Gansmuller, A., Décimo, D., Chambon, P. and Mark, M. Retinal dysplasia and degeneration in RAR β 2/RAR γ 2 compound mutant mice	2173-2188
Nakatani, Y., Yasuo, H., Satoh, N. and Nishida, H. Basic fibroblast growth factor induces notochord formation and the expression of As-T, a <i>Brachyury</i> homolog, during ascidian embryogenesis	2023-2031	LaJeunesse, D. and Shearn, A. <i>E(z)</i> : a polycomb group gene or a trithorax group gene?	2189-2197
Ault, K. T., Durmowicz, G., Galione, A., Harger, P. L. and Busa, W. B. Modulation of <i>Xenopus</i> embryo mesoderm-specific gene expression and dorsoanterior patterning by receptors that activate the phosphatidylinositol cycle signal transduction pathway	2033-2041	McGuinness, O. M., Moreton, R. B., Johnson, M. H. and Berridge, M. J. A direct measurement of increased divalent cation influx in fertilised mouse oocytes	2199-2206
Shelton, C. A. and Bowerman, B. Time-dependent responses to <i>glp-1</i> -mediated inductions in early <i>C. elegans</i> embryos	2043-2050	Sakai, M. The vegetal determinants required for the Spemann organizer move equatorially during the first cell cycle	2207-2214
Hong, S. K., Kitano, H., Satoh, H. and Nagato, Y. How is embryo size genetically regulated in rice?	2051-2058	Kühnlein, R. P. and Schuh, R. Dual function of the region-specific homeotic gene <i>spalt</i> during <i>Drosophila</i> tracheal system development	2215-2223
Hardy, R. J. and Friedrich, V. L. Jr Oligodendrocyte progenitors are generated throughout the embryonic mouse brain, but differentiate in restricted foci	2059-2069	Melby, A. E., Warga, R. M. and Kimmel, C. B. Specification of cell fates at the dorsal margin of the zebrafish gastrula	2225-2237
Müller, M., Weizsäcker, E. v. and Campos-Ortega, J. A. Expression domains of a zebrafish homologue of the <i>Drosophila</i> pair-rule gene <i>hairy</i> correspond to primordia of alternating somites	2071-2078	Chiang, M.-K. and Flanagan, J. G. PTP-NP, a new member of the receptor protein tyrosine phosphatase family, implicated in development of nervous system and pancreatic endocrine cells	2239-2250
Reissmann, E., Ernsberger, U., Francis-West, P. H., Rueger, D., Brickell, P. M. and Rohrer, H. Involvement of bone morphogenetic protein-4 and bone morphogenetic protein-7 in the differentiation of the adrenergic phenotype in developing sympathetic neurons	2079-2088	Uyttendaele, H., Marazzi, G., Wu, G., Yan, Q., Sasoon, D. and Kitajewski, J. <i>Notch4/int-3</i> , a mammary proto-oncogene, is an endothelial cell-specific mammalian <i>Notch</i> gene	2251-2259
Kuwabara, P. E. A novel regulatory mutation in the <i>C. elegans</i> sex determination gene <i>tra-2</i> defines a candidate ligand/receptor interaction site	2089-2098	Burke, R. and Basler, K. Dpp receptors are autonomously required for cell proliferation in the entire developing <i>Drosophila</i> wing	2261-2269
Newfeld, S. J., Chartoff, E. H., Graff, J. M., Melton, D. A. and Gelbart, W. M. <i>Mothers against dpp</i> encodes a conserved cytoplasmic protein required in DPP/TGF- β responsive cells	2099-2108	Weiler-Guettler, H., Aird, W. C., Rayburn, H., Husain, M. and Rosenberg, R. D. Developmentally regulated gene expression of thrombomodulin in postimplantation mouse embryos	2271-2281
Manseau, L., Calley, J. and Phan, H. Profilin is required for posterior patterning of the <i>Drosophila</i> oocyte	2109-2116	Manfruelli, P., Arquier, N., Hanratty, W. P. and Sémeriva, M. The tumor suppressor gene, <i>lethal(2)giant larvae</i> (<i>l(2)gl</i>), is required for cell shape change of epithelial cells during <i>Drosophila</i> development	2283-2294
		Chitnis, A. and Kintner, C. Sensitivity of proneural genes to lateral inhibition affects the pattern of primary neurons in <i>Xenopus</i> embryos	2295-2301

viii Contents

Laney, J. D. and Biggin, M. D.		Roles of cell-autonomous mechanisms for differential expression of region-specific transcription factors in neuroepithelial cells	2449-2464
Redundant control of <i>Ultrabithorax</i> by zeste involves functional levels of zeste protein binding at the <i>Ultrabithorax</i> promoter	2303-2311		
Furriols, M., Sprenger, F. and Casanova, J.		Sun, X. and Artavanis-Tsakonas, S.	2465-2474
Variation in the number of activated torso receptors correlates with differential gene expression	2313-2317	The intracellular deletions of DELTA and SERRATE define dominant negative forms of the <i>Drosophila</i> Notch ligands	
Ros, M. A., López-Martínez, A., Simandl, B. K., Rodriguez, C., Izpisúa Belmonte, J. C., Dahn, R. and Fallon, J. F.		Zeltser, L., Desplan, C. and Heintz, N.	2475-2484
The limb field mesoderm determines initial limb bud anteroposterior asymmetry and budding independent of sonic hedgehog or apical ectodermal gene expressions	2319-2330	<i>Hoxb-13</i> : a new Hox gene in a distant region of the HOXB cluster maintains colinearity	
Becker, T. S., Bothe, G., Berliner, A. J. and Macagno, E. R.		Stachecki, J. J. and Armant, D. R.	2485-2496
Identified central neurons convey a mitogenic signal from a peripheral target to the CNS	2331-2337	Transient release of calcium from inositol 1,4,5-trisphosphate-specific stores regulates mouse preimplantation development	
Pain, B., Clark, M. E., Shen, M., Nakazawa, H., Sakurai, M., Samarut, J. and Etches, R. J.		Frade, J. M., Martí, E., Bovolenta, P., Rodríguez-Peña, M. A., Pérez-García, D., Rohrer, H., Edgar, D. and Rodríguez-Tébar, A.	2497-2506
Long-term in vitro culture and characterisation of avian embryonic stem cells with multiple morphogenetic potentialities	2339-2348	Insulin-like growth factor-I stimulates neurogenesis in chick retina by regulating expression of the $\alpha 6$ integrin subunit	
Gañán, Y., Macias, D., Duterque-Coquillaud, M., Ros, M. A. and Hurle, J. M.		Euling, S. and Ambros, V.	2507-2515
Role of TGF β s and BMPs as signals controlling the position of the digits and the areas of interdigital cell death in the developing chick limb autopod	2349-2357	Reversal of cell fate determination in <i>Caenorhabditis elegans</i> vulval development	
Thomsen, G. H.		Bettinger, J. C., Lee, K. and Rougvie, A. E.	2517-2527
<i>Xenopus mothers against decapentaplegic</i> is an embryonic ventralizing agent that acts downstream of the BMP-2/4 receptor	2359-2366	Stage-specific accumulation of the terminal differentiation factor LIN-29 during <i>Caenorhabditis elegans</i> development	
Niederländer, C. and Lumsden, A.		Vemuri, G. S. and McMorris, F. A.	2529-2537
Late emigrating neural crest cells migrate specifically to the exit points of cranial branchiomotor nerves	2367-2374	Oligodendrocytes and their precursors require phosphatidylinositol 3-kinase signaling for survival	
Shepherd, D. and Smith S. A.		Lallier, T. E., Whittaker, C. A. and DeSimone, D. W.	2539-2554
Central projections of persistent larval sensory neurons prefigure adult sensory pathways in the CNS of <i>Drosophila</i>	2375-2384	Integrin $\alpha 6$ expression is required for early nervous system development in <i>Xenopus laevis</i>	
Ladher, R., Mohun, T. J., Smith, J. C. and Snape, A. M.		Tremblay, P., Pituello, F. and Gruss P.	2555-2567
<i>Xom</i> : a <i>Xenopus</i> homeobox gene that mediates the early effects of BMP-4	2385-2394	Inhibition of floor plate differentiation by <i>Pax3</i> : evidence from ectopic expression in transgenic mice	
Grbić, V. and Bleecker, A. B.		Brock, D. A., Buczynski, G., Spann, T. P., Wood, S. A., Cardelli, J. and Gomer, R. H.	2569-2578
An altered body plan is conferred on <i>Arabidopsis</i> plants carrying dominant alleles of two genes	2395-2403	A <i>Dictyostelium</i> mutant with defective aggregate size determination	
EIShamy, W. M. and Ernfors, P.		Labouesse, M., Hartwig, E. and Horvitz, H. R.	2579-2588
Requirement of neurotrophin-3 for the survival of proliferating trigeminal ganglion progenitor cells	2405-2414	The <i>Caenorhabditis elegans</i> LIN-26 protein is required to specify and/or maintain all non-neuronal ectodermal cell fates	
Moessler, H., Mericskay, M., Li, Z., Nagl, S., Paulin, D. and Small, J. V.		Montagne, J., Groppe, J., Guillemin, K., Krasnow, M. A., Gehring, W. J. and Affolter, M.	2589-2597
The <i>SM 22</i> promoter directs tissue-specific expression in arterial but not in venous or visceral smooth muscle cells in transgenic mice	2415-2425	The <i>Drosophila</i> Serum Response Factor gene is required for the formation of intervein tissue of the wing and is allelic to <i>blistered</i>	
Conlon, F. L., Sedgwick, S. G., Weston, K. M. and Smith, J. C.		Catala, M., Teillet, M.-A., De Robertis, E. M. and Le Douarin, N. M.	2599-2610
Inhibition of Xbra transcription activation causes defects in mesodermal patterning and reveals autoregulation of Xbra in dorsal mesoderm	2427-2435	A spinal cord fate map in the avian embryo: while regressing, Hensen's node lays down the notochord and floor plate thus joining the spinal cord lateral walls	
Gönczy, P. and DiNardo, S.		García-Alonso, L., Fetter, R. D. and Goodman, C. S.	2611-2622
The germ line regulates somatic cyst cell proliferation and fate during <i>Drosophila</i> spermatogenesis	2437-2447	Genetic analysis of <i>Laminin A</i> in <i>Drosophila</i> : extracellular matrix containing laminin A is required for ocellar axon pathfinding	
Nakagawa, Y., Kaneko, T., Ogura, T., Susuki, T., Torii, M., Kaibuchi, K., Arai, K.-I., Nakamura, S. and Nakafuku, M.		Shaw, S. L. and Quatrano, R. S.	2623-2630
		The role of targeted secretion in the establishment of cell polarity and the orientation of the division plane in <i>Fucus</i> zygotes	

Ray, A., Lang, J. D., Golden, T. and Ray, S. SHORT INTEGUMENT (<i>SIN1</i>), a gene required for ovule development in <i>Arabidopsis</i> , also controls flowering time	2631-2638	Gavis, E. R., Lunsford, L., Bergsten, S. E. and Lehmann, R. A conserved 90 nucleotide element mediates translational repression of <i>nanos</i> RNA	2791-2800
Jun, S. and Desplan, C. Cooperative interactions between paired domain and homeodomain	2639-2650	Cadigan, K. M. and Nusse, R. <i>wingless</i> signaling in the <i>Drosophila</i> eye and embryonic epidermis	2801-2812
Kondo, T., Dollé, P., Zákány, J. and Duboule, D. Function of posterior <i>HoxD</i> genes in the morphogenesis of the anal sphincter	2651-2659	Kent, J., Wheatley, S. C., Andrews, J. E., Sinclair, A. H. and Koopman, P. A male-specific role for <i>SOX9</i> in vertebrate sex determination	2813-2822
Michaelson, M. D., Bieri, P. L., Mehler, M. F., Xu, H., Arezzo, J. C., Pollard, J. W. and Kessler, J. A. CSF-1 deficiency in mice results in abnormal brain development	2661-2672	Sundaram, M., Yochem, J. and Han, M. A Ras-mediated signal transduction pathway is involved in the control of sex myoblast migration in <i>Caenorhabditis elegans</i>	2823-2833
Bertucciolli, C., Fasano, L., Jun, S., Wang, S., Sheng, G. and Desplan, C. In vivo requirement for the paired domain and homeodomain of the <i>paired</i> segmentation gene product	2673-2685	Concordet, J.-P., Lewis, K. E., Moore, J. W., Goodrich, L. V., Johnson, R. L., Scott, M. P. and Ingham, P. W. Spatial regulation of a zebrafish <i>patched</i> homologue reflects the roles of <i>sonic hedgehog</i> and protein kinase A in neural tube and somite patterning	2835-2846
Benson, G. V., Lim, H., Paria, B. C., Satokata, I., Dey, S. K. and Maas, R. L. Mechanisms of reduced fertility in <i>Hoxa-10</i> mutant mice: uterine homeosis and loss of maternal <i>Hoxa-10</i> expression	2687-2696	Murphy, P., Topilko, P., Schneider-Maunoury, S., Seitaniadou, T., Baron-Van Evercooren, A. and Charnay, P. The regulation of <i>Krox-20</i> expression reveals important steps in the control of peripheral glial cell development	2847-2857
Fujioka, M., Miskiewicz, P., Raj, L., Gullede, A. A., Weir, M. and Goto, T. <i>Drosophila</i> Paired regulates late <i>even-skipped</i> expression through a composite binding site for the paired domain and the homeodomain	2697-2707	Hathaway, H. J. and Shur, B. D. Mammary gland morphogenesis is inhibited in transgenic mice that overexpress cell surface β 1,4-galactosyltransferase	2859-2872
Miskiewicz, P., Morrissey, D., Lan, Y., Raj, L., Kessler, S., Fujioka, M., Goto, T. and Weir, M. Both the paired domain and homeodomain are required for in vivo function of <i>Drosophila</i> Paired	2709-2718	Ramos, J. W., Whittaker, C. A. and DeSimone, D. W. Integrin-dependent adhesive activity is spatially controlled by inductive signals at gastrulation	2873-2883
de Celis, J. F., de Celis, J., Ligoxygakis, P., Preiss, A., Delidakis, C. and Bray, S. Functional relationships between <i>Notch</i> , <i>Su(H)</i> and the bHLH genes of the <i>E(spl)</i> complex: the <i>E(spl)</i> genes mediate only a subset of <i>Notch</i> activities during imaginal development	2719-2728	Epstein, D. J., Martí, E., Scott, M. P. and McMahon, A. P. Antagonizing cAMP-dependent protein kinase A in the dorsal CNS activates a conserved Sonic hedgehog signaling pathway	2885-2894
Phippard, D. J., Weber-Hall, S. J., Sharpe, P. T., Naylor, M. S., Jayatalake, H., Maas, R., Woo, I., Roberts-Clark, D., Francis-West, P. H., Liu, Y.-H., Maxson, R., Hill, R. E. and Dale, T. C. Regulation of <i>Msx-1</i> , <i>Msx-2</i> , <i>Bmp-2</i> and <i>Bmp-4</i> during foetal and postnatal mammary gland development	2729-2737	Dahl, U., Sjödin, A. and Semb, H. Cadherins regulate aggregation of pancreatic β -cells in vivo	2895-2902
Bradley, L., Wainstock, D. and Sive, H. Positive and negative signals modulate formation of the <i>Xenopus</i> cement gland	2739-2750	Rankin, T., Familiari, M., Lee, E., Ginsberg, A., Dwyer, N., Blanchette-Mackie, J., Drago, J., Westphal, H. and Dean, J. Mice homozygous for an insertional mutation in the <i>Zfp3</i> gene lack a zona pellucida and are infertile	2903-2910
Franke, A., Dernburg, A., Bashaw, G. J. and Baker, B. S. Evidence that MSL-mediated dosage compensation in <i>Drosophila</i> begins at blastoderm	2751-2760	Holland, N. D., Panganiban, G., Henyey, E. L. and Holland, L. Z. Sequence and developmental expression of <i>AmphiDII</i> , an amphioxus <i>Distal-less</i> gene transcribed in the ectoderm, epidermis and nervous system: insights into evolution of craniate forebrain and neural crest	2911-2920
Callahan, C. A., Bonkovsky, J. L., Scully, A. L. and Thomas, J. B. <i>derailed</i> is required for muscle attachment site selection in <i>Drosophila</i>	2761-2767	Bhat, K. M. The <i>patched</i> signaling pathway mediates repression of <i>gooseberry</i> allowing neuroblast specification by <i>wingless</i> during <i>Drosophila</i> neurogenesis	2921-2932
Saga, Y., Hata, N., Kobayashi, S., Magnuson, T., Seldin, M. F. and Taketo, M. M. MesP1: a novel basic helix-loop-helix protein expressed in the nascent mesodermal cells during mouse gastrulation	2769-2778	Nicolas, J. F., Mathis, L. and Bonnerot, C. Evidence in the mouse for self-renewing stem cells in the formation of a segmented longitudinal structure, the myotome	2933-2946
Wei, Y., Bader, D. and Litvin, J. Identification of a novel cardiac-specific transcript critical for cardiac myocyte differentiation	2779-2789		

x Contents

Zhou, Y. and King, M. L.	Keratinocyte growth factor and its receptor are involved in regulating early lung branching	3107-3115
Localization of <i>Xcat-2</i> RNA, a putative germ plasm component, to the mitochondrial cloud in <i>Xenopus</i> stage I oocytes	2947-2953	
Phillis, R., Statton, D., Caruccio, P. and Murphey, R. K.	Harris, J., Honigberg, L., Robinson, N. and Kenyon, C.	3117-3131
Mutations in the 8 kDa dynein light chain gene disrupt sensory axon projections in the <i>Drosophila</i> imaginal CNS	2955-2963	Neuronal cell migration in <i>C. elegans</i> : regulation of hox gene expression and cell position
Banuett, F. and Herskowitz, I.	Watts, J. L., Etemad-Moghadam, B., Guo, S., Boyd, L., Draper, B. W., Mello, C. C., Priess, J. R. and Kempfhus, K. J.	3133-3140
Discrete developmental stages during teliospore formation in the corn smut fungus, <i>Ustilago maydis</i>	2965-2976	<i>par-6</i> , a gene involved in the establishment of asymmetry in early <i>C. elegans</i> embryos, mediates the asymmetric localization of PAR-3
Zhang, H. and Bradley, A.	Smith, S. T. and Jaynes, J. B.	3141-3150
Mice deficient for BMP2 are nonviable and have defects in amnion/chorion and cardiac development	2977-2986	A conserved region of engrailed, shared among all en-, gsc-, Nk1-, Nk2- and msh-class homeoproteins, mediates active transcriptional repression in vivo
Wylie, C., Kofron, M., Payne, C., Anderson, R., Hosobuchi, M., Joseph, E. and Heasman, J.	Hayman, A. R., Jones, S. J., Boyde, A., Foster, D., Colledge, W. H., Carlton, M. B., Evans, M. J. and Cox, T. M.	3151-3162
Maternal β -catenin establishes a 'dorsal signal' in early <i>Xenopus</i> embryos	2987-2996	Mice lacking tartrate-resistant acid phosphatase (Acp 5) have disrupted endochondral ossification and mild osteopetrosis
Fromental-Ramain, C., Warot, X., Messadecq, N., LeMeur, M., Dollé, P. and Chambon, P.	Fredette, B. J., Miller, J. and Ranscht, B.	3163-3171
<i>Hoxa-13</i> and <i>Hoxd-13</i> play a crucial role in the patterning of the limb autopod	2997-3011	Inhibition of motor axon growth by T-cadherin substrata
Partanen, J., Puri, M. C., Schwartz, L., Fischer, K.-D., Bernstein, A. and Rossant, J.	Kroll, K. L. and Amaya, E.	3173-3183
Cell autonomous functions of the receptor tyrosine kinase TIE in a late phase of angiogenic capillary growth and endothelial cell survival during murine development	3013-3021	Transgenic <i>Xenopus</i> embryos from sperm nuclear transplants reveal FGF signaling requirements during gastrulation
Bernex, F., De Sepulveda, P., Kress, C., Elbaz, C., Delouis, C. and Panthier, J.-J.	Larue, L., Antos, C., Butz, S., Huber, O., Delmas, V., Dominis, M. and Kemler, R.	3185-3194
Spatial and temporal patterns of <i>c-kit</i> -expressing cells in <i>W^{lacZ/+}</i> and <i>W^{lacZ/lacZ}</i> mouse embryos	3023-3033	A role for cadherins in tissue formation
Chen, Y., Bei, M., Woo, I., Satokata, I. and Maas, R.	Lei, H., Oh, S. P., Okano, M., Jüttermann, R., Goss, K. A., Jaenisch, R. and Li, E.	3195-3205
<i>Msx1</i> controls inductive signaling in mammalian tooth morphogenesis	3035-3044	De novo DNA cytosine methyltransferase activities in mouse embryonic stem cells
Onichtchouk, D., Gawantka, V., Dosch, R., Delius, H., Hirschfeld, K., Blumenstock, C. and Niehrs, C.	Huang, Y. and Fischer-Vize, J. A.	3207-3216
The Xvent-2 homeobox gene is part of the <i>BMP-4</i> signalling pathway controlling dorsoventral patterning of <i>Xenopus</i> mesoderm	3045-3053	Undifferentiated cells in the developing <i>Drosophila</i> eye influence facet assembly and require the Fat facets ubiquitin-specific protease
Carnac, G., Kodjabachian, L., Gurdon, J. B. and Lemaire, P.	Goddard, J. M., Rossel, M., Manley, N. R. and Capecchi, M. R.	3217-3228
The homeobox gene <i>Siamois</i> is a target of the Wnt dorsalisation pathway and triggers organiser activity in the absence of mesoderm	3055-3065	Mice with targeted disruption of <i>Hoxb-1</i> fail to form the motor nucleus of the VIIth nerve
Ghiglione, C., Emily-Fenouil, F., Chang, P. and Gache, C.	Köntges, G. and Lumsden, A.	3229-3242
Early gene expression along the animal-vegetal axis in sea urchin embryos and grafted embryos	3067-3074	Rhombencephalic neural crest segmentation is preserved throughout craniofacial ontogeny
Boyd, L., Guo, S., Levitan, D., Stinchcomb, D. T. and Kempfhus, K. J.	Chen, Y.-C. S. and McCormick, S.	3243-3253
PAR-2 is asymmetrically distributed and promotes association of P granules and PAR-1 with the cortex in <i>C. elegans</i> embryos	3075-3084	<i>sidcar pollen</i> , an <i>Arabidopsis thaliana</i> male gametophytic mutant with aberrant cell divisions during pollen development
Reynolds, A. J. and Jahoda, C. A. B.	Piñón, L. G. P., Minichiello, L., Klein, R. and Davies, A. M.	3255-3261
Hair matrix germinative epidermal cells confer follicle-inducing capabilities on dermal sheath and high passage papilla cells	3085-3094	Timing of neuronal death in <i>trkB</i> and <i>trkC</i> mutant embryos reveals developmental changes in sensory neuron dependence on Trk signalling
Díaz, C. and Glover, J. C.	Psychoyos, D. and Stern, C. D.	3263-3273
Appropriate pattern formation following regenerative regeneration in the hindbrain neural tube	3095-3105	Restoration of the organizer after radical ablation of Hensen's node and the anterior primitive streak in the chick embryo
Post, M., Souza, P., Liu, J., Tseu, I., Wang, J., Kuliszewski, M. and Tanswell, A. K.	Lustig, K. D., Kroll, K., Sun, E., Ramos, R., Elmendorf, H. and Kirschner, M. W.	

A <i>Xenopus</i> nodal-related gene that acts in synergy with noggin to induce complete secondary axis and notochord formation	3275-3282	Joseph, S. J., Ford, M. D., Barth, C., Portbury, S., Bartlett, P. F., Nurcombe, V. and Greferath, U. A proteoglycan that activates fibroblast growth factors during early neuronal development is a perlecan variant	3443-3452
Forbes, A. J., Spradling, A. C., Ingham, P. W. and Lin, H. The role of segment polarity genes during early oogenesis in <i>Drosophila</i>	3283-3294	Stoykova, A., Fritsch, R., Walther, C. and Gruss, P. Forebrain patterning defects in <i>Small eye</i> mutant mice	3453-3465
Nuckolls, G. H., Osherov, N., Loomis, W. F. and Spudich, J. A. The <i>Dictyostelium</i> dual-specificity kinase splA is essential for spore differentiation	3295-3305	Nambu, P. A. and Nambu, J. R. The <i>Drosophila fish-hook</i> gene encodes a HMG domain protein essential for segmentation and CNS development	3467-3475
Brabant, M. C., Fristrom, D., Bunch, T. A. and Brower, D. L. Distinct spatial and temporal functions for PS integrins during <i>Drosophila</i> wing morphogenesis	3307-3317	Neumann, C. J. and Cohen, S. M. A hierarchy of cross-regulation involving <i>Notch</i> , <i>wingless</i> , <i>vestigial</i> and <i>cut</i> organizes the dorsal/ventral axis of the <i>Drosophila</i> wing	3477-3485
Alarid, E. T., Windle, J. J., Whyte, D. B. and Mellon, P. L. Immortalization of pituitary cells at discrete stages of development by directed oncogenesis in transgenic mice	3319-3329	Mullen, L. M., Bryant, S. V., Tork, M. A., Blumberg, B. and Gardiner, D. M. Nerve dependency of regeneration: the role of <i>Distal-less</i> and FGF signaling in amphibian limb regeneration	3487-3497
Wu, J.-X. and Adamson, E. D. Kinase-negative mutant epidermal growth factor receptor (EGFR) expression during embryonal stem cell differentiation favours EGFR-independent lineages	3331-3342	Bellaïche, Y., Bandyopadhyay, R., Desplan, C. and Dostatni, N. Neither the homeodomain nor the activation domain of Bicoid is specifically required for its down-regulation by the Torso receptor tyrosine kinase cascade	3499-3508
Monkey, S. J., Delaney, S. J., Pennisi, D. J., Christiansen, J. H. and Wainwright, B. J. Targeted disruption of the <i>Wnt2</i> gene results in placental defects	3343-3353	Guenther, C. and Garriga, G. Asymmetric distribution of the <i>C. elegans</i> HAM-1 protein in neuroblasts enables daughter cells to adopt distinct fates	3509-3518
Gabay, L., Scholz, H., Golembio, M., Klaes, A., Shilo, B.-Z. and Klämbt, C. EGF receptor signaling induces <i>pointed</i> <i>P1</i> transcription and inactivates Yan protein in the <i>Drosophila</i> embryonic ventral ectoderm	3355-3362	Johnston, L. A. and Schubiger, G. Ectopic expression of <i>wingless</i> in imaginal discs interferes with <i>decapentaplegic</i> expression and alters cell determination	3519-3529
Golembio, M., Raz, E. and Shilo, B.-Z. The <i>Drosophila</i> embryonic midline is the site of Spitz processing, and induces activation of the EGF receptor in the ventral ectoderm	3363-3370	Samakovlis, C., Manning, G., Steneberg, P., Hacohen, N., Cantera, R. and Krasnow, M. A. Genetic control of epithelial tube fusion during <i>Drosophila</i> tracheal development	3531-3536
Devoto, S. H., Melançon, E., Eisen, J. S. and Westerfield, M. Identification of separate slow and fast muscle precursor cells <i>in vivo</i> , prior to somite formation	3371-3380	Kreidberg, J. A., Donovan, M. J., Goldstein, S. L., Renke, H., Shepherd, K., Jones, R. C. and Jaenisch, R. Alpha 3 beta 1 integrin has a crucial role in kidney and lung organogenesis	3537-3547
Torres, M., Gómez-Pardo, E. and Gruss, P. <i>Pax2</i> contributes to inner ear patterning and optic nerve trajectory	3381-3391	Cleaver, O. B., Patterson, K. D. and Krieg, P. A. Overexpression of the <i>tinman</i> -related genes <i>XNkx-2.5</i> and <i>XNkx-2.3</i> in <i>Xenopus</i> embryos results in myocardial hyperplasia	3549-3556
Couly, G., Grapin-Botton, A., Coltey, P. and Le Douarin, N. M. The regeneration of the cephalic neural crest, a problem revisited: the regenerating cells originate from the contralateral or from the anterior and posterior neural fold	3393-3407	Kawakami, Y., Ishikawa, T., Shimabara, M., Tanda, N., Enomoto-Iwamoto, M., Iwamoto, M., Kuwana, T., Ueki, A., Noji, S. and Nohno, T. BMP signaling during bone pattern determination in the developing limb	3557-3566
Papalopulu, N. and Kintner, C. A posteriorising factor, retinoic acid, reveals that anteroposterior patterning controls the timing of neuronal differentiation in <i>Xenopus</i> neuroectoderm	3409-3418	Matsuzaki, M. and Saigo, K. <i>hedgehog</i> signaling independent of <i>engrailed</i> and <i>wingless</i> required for post-S1 neuroblast formation in <i>Drosophila</i> CNS	3567-3575
Rogers, B. T. and Kaufman, T. C. Structure of the insect head as revealed by the EN protein pattern in developing embryos	3419-3432	Swan, A. and Suter, B. Role of <i>Bicaudal-D</i> in patterning the <i>Drosophila</i> egg chamber in mid-oogenesis	3577-3586
Perbal, M.-C., Haughn, G., Saedler, H. and Schwarz-Sommer, Z. Non-cell-autonomous function of the <i>Antirrhinum</i> floral homeotic proteins <i>DEFICIENS</i> and <i>GLOBOSA</i> is exerted by their polar cell-to-cell trafficking	3433-3441	Suzuki, N., Labosky, P. A., Furuta, Y., Hargett, L., Dunn, R., Fogo, A. B., Takahara, K., Peters, D. M. P., Greenspan, D. S. and Hogan, B. L. M. Failure of ventral body wall closure in mouse embryos lacking a procollagen C-proteinase encoded by <i>Bmp1</i> , a mammalian gene related to <i>Drosophila tolloid</i>	3587-3595

xii Contents

Nagamine, C. M. and Carlisle, C. The dominant white spotting oncogene allele <i>KiW-42J</i> exacerbates XY ^{DOM} sex reversal	3597-3605	Pointed, an ETS domain transcription factor, negatively regulates the EGF receptor pathway in <i>Drosophila</i> oogenesis	3745-3754
Monsoro-Burq, A.-H., Duprez, D., Watanabe, Y., Bontoux, M., Vincent, C., Brickell, P. and Le Douarin, N. The role of bone morphogenetic proteins in vertebral development	3607-3616	Fernandes, J. J. and Keshishian, H. Patterning the dorsal longitudinal flight muscles (DLM) of <i>Drosophila</i> : insights from the ablation of larval scaffolds	3755-3763
Newman, A. P., White, J. G. and Sternberg, P. W. Morphogenesis of the <i>C. elegans</i> hermaphrodite uterus	3617-3626	Shawber, C., Nofziger, D., Hsieh, J. J.-D., Lindsell, C., Böglar, O., Hayward, D. and Weinmaster, G. Notch signaling inhibits muscle cell differentiation through a CBF1-independent pathway	3765-3773
Kispert, A., Vainio, S., Shen, L., Rowitch, D. H. and McMahon, A. P. Proteoglycans are required for maintenance of <i>Wnt-11</i> expression in the ureter tips	3627-3637	de Saint Phalle, B. and Sullivan, W. Incomplete sister chromatid separation is the mechanism of programmed chromosome elimination during early <i>Sciara coprophila</i> embryogenesis	3775-3784
Larkin, M. K., Holder, K., Yost, C., Giniger, E. and Ruohola-Baker, H. Expression of constitutively active Notch arrests follicle cells at a precursor stage during <i>Drosophila</i> oogenesis and disrupts the anterior-posterior axis of the oocyte	3639-3650	Millet, S., Bloch-Gallego, E., Simeone, A. and Alvarado-Mallart, R.-M. The caudal limit of <i>Otx2</i> gene expression as a marker of the midbrain/hindbrain boundary: a study using <i>in situ</i> hybridisation and chick/quail homotopic grafts	3785-3797
Deguchi, R., Osanai, K. and Morisawa, M. Extracellular Ca ²⁺ entry and Ca ²⁺ release from inositol 1,4,5-trisphosphate-sensitive stores function at fertilization in oocytes of the marine bivalve <i>Mytilus edulis</i>	3651-3660	Pickett, F. B., Champagne, M. M. and Meeks-Wagner, D. R. Temperature-sensitive mutations that arrest <i>Arabidopsis</i> shoot development	3799-3807
McDaniel, C. N. and Hartnett, L. K. Flowering as metamorphosis: two sequential signals regulate floral initiation in <i>Lolium temulentum</i>	3661-3668	Chen, J.-N. and Fishman, M. C. Zebrafish <i>tinman</i> homolog demarcates the heart field and initiates myocardial differentiation	3809-3816
Russell, S. R. H., Sanchez-Soriano, N., Wright, C. R. and Ashburner, M. The <i>Dichaete</i> gene of <i>Drosophila melanogaster</i> encodes a SOX-domain protein required for embryonic segmentation	3669-3676	Barrow, J. R. and Capecchi, M. R. Targeted disruption of the <i>Hoxb-2</i> locus in mice interfere with expression of <i>Hoxb-1</i> and <i>Hoxb-4</i>	3817-3828
Wood, S. A., Ammann, R. R., Brock, D. A., Li, L., Spann, T. and Gomer, R. H. RtoA links initial cell type choice to the cell cycle in <i>Dictyostelium</i>	3677-3685	Kukk, E., Lymboussaki, A., Taira, S., Kaipainen, A., Jeitsch, M., Joukov, V. and Alitalo, K. VEGF-C receptor binding and pattern of expression with VEGFR-3 suggests a role in lymphatic vascular development	3829-3837
Kikkawa, M., Takano, K. and Shinagawa, A. Location and behavior of dorsal determinants during first cell cycle in <i>Xenopus</i> eggs	3687-3696	Briegel, K., Bartunek, P., Stengl, G., Lim, K.-C., Beug, H., Engel, J. D. and Zenke, M. Regulation and function of transcription factor GATA-1 during red blood cell differentiation	3839-3850
Tanaka-Matakatsu, M., Uemura, T., Oda, H., Takeichi, M. and Hayashi, S. Cadherin-mediated cell adhesion and cell motility in <i>Drosophila</i> trachea regulated by the transcription factor Escargot	3697-3705	Grieshammer, U., Minowada, G., Pisenti, J. M., Abbott, U. K. and Martin, G. R. The chick <i>limbless</i> mutation causes abnormalities in limb bud dorsal-ventral patterning: implications for the mechanism of apical ridge formation	3851-3861
Singer, J. B., Harbecke, R., Kusch, T., Reuter, R. and Lengyel, J. A. <i>Drosophila brachyenteron</i> regulates gene activity and morphogenesis in the gut	3707-3718	Goode, S., Melnick, M., Chou, T.-B. and Perrimon, N. The neurogenic genes <i>egghead</i> and <i>brainiac</i> define a novel signaling pathway essential for epithelial morphogenesis during <i>Drosophila</i> oogenesis	3863-3879
Zernicka-Goetz, M., Pines, J., Ryan, K., Siemerling, K. R., Haseloff, J., Evans, M. J. and Gurdon J. B. An indelible lineage marker for <i>Xenopus</i> using a mutated green fluorescent protein	3719-3724	Pownall, M. E., Tucker, A. S., Slack, J. M. W. and Isaacs, H. V. <i>eFGF</i> , <i>Xcad3</i> and <i>Hox</i> genes form a molecular pathway that establishes the anteroposterior axis in <i>Xenopus</i>	3881-3892
Yokouchi, Y., Sakiyama, J.-i., Kameda, T., Iba, H., Suzuki, A., Ueno, N. and Kuroiwa, A. BMP-2/-4 mediate programmed cell death in chicken limb buds	3725-3734	Pellegrini, M., Mansouri, A., Simeone, A., Boncinelli, E. and Gruss, P. Dentate gyrus formation requires <i>Emx2</i>	3893-3898
Renucci, A., Lemarchandell, V. and Rosa, F. An activated form of type I serine/threonine kinase receptor TARAM-A reveals a specific signalling pathway involved in fish head organiser formation	3735-3743	Robson, L. G. and Hughes, S. M. The distal limb environment regulates MyoD accumulation and muscle differentiation in mouse-chick chimaeric limbs	3899-3910
Morimoto, A. M., Jordan, K. C., Tietze, K., Britton, J. S., O'Neill, E. M. and Ruohola-Baker, H.		Reid, K., Turnley, A. M., Maxwell, G. D., Kurihara, Y., Kurihara, H., Bartlett, P. F. and Murphy, M. Multiple roles for endothelin in melanocyte development: regulation of progenitor number and stimulation of differentiation	3911-3919

González-Crespo, S. and Morata, G. Genetic evidence for the subdivision of the arthropod limb into coxopodite and telopodite	3921-3928	Staab, S., Heller, A. and Steinmann-Zwicky, M. Somatic sex-determining signals act on XX germ cells in <i>Drosophila</i> embryos	4065-4071
Meeson, A., Palmer, M., Calfon, M. and Lang, R. A relationship between apoptosis and flow during programmed capillary regression is revealed by vital analysis	3929-3938	Carrington, E. A. and Jones, R. S. The <i>Drosophila</i> Enhancer of <i>zeste</i> gene encodes a chromosomal protein: examination of wild-type and mutant protein distribution	4073-4083
Theisen, H., Haerry, T. E., O'Connor, M. B. and Marsh, J. L. Developmental territories created by mutual antagonism between Wingless and Decapentaplegic	3939-3948	Hall, A., Giese, N. A. and Richardson, W. D. Spinal cord oligodendrocytes develop from ventrally derived progenitor cells that express PDGF alpha-receptors	4085-4094
Truman, J. W., De Vente, J. and Ball, E. E. Nitric oxide-sensitive guanylate cyclase activity is associated with the maturational phase of neuronal development in insects	3949-3958	Lawrence, P. A., Sanson, B. and Vincent, J.-P. Compartments, wingless and engrailed: patterning the ventral epidermis of <i>Drosophila</i> embryos	4095-4103
de Cuevas, M., Lee, J. K. and Spradling, A. C. α -spectrin is required for germline cell division and differentiation in the <i>Drosophila</i> ovary	3959-3968	Moskowitz, I. P. G. and Rothman, J. H. <i>lin-12</i> and <i>glp-1</i> are required zygotically for early embryonic cellular interactions and are regulated by maternal GLP-1 signaling in <i>Caenorhabditis elegans</i>	4105-4117
Storm, E. E. and Kingsley, D. M. Joint patterning defects caused by single and double mutations in members of the bone morphogenetic protein (BMP) family	3969-3979	Zhang, J. and King, M. L. <i>Xenopus</i> VegT RNA is localized to the vegetal cortex during oogenesis and encodes a novel T-box transcription factor involved in mesodermal patterning	4119-4129
Moens, C. B., Yan, Y.-L., Appel, B., Force, A. G. and Kimmel, C. B. <i>valentino</i> : a zebrafish gene required for normal hindbrain segmentation	3981-3990	Mével-Ninio, M., Fouilloux, E., Guénal, I. and Vincent, A. The three dominant female-sterile mutations of the <i>Drosophila</i> <i>ovo</i> gene are point mutations that create new translation-initiator AUG codons	4131-4138
Tewari, R., Gillemans, N., Harper, A., Wijgerde, M., Zafarana, G., Drabek, D., Grosveld, F. and Philipsen, S. The human β -globin locus control region confers an early embryonic erythroid-specific expression pattern to a basic promoter driving the bacterial <i>lacZ</i> gene	3991-3999	Dokucu, M. E., Zipursky, S. L. and Cagan, R. L. Atonal, Rough and the resolution of proneural clusters in the developing <i>Drosophila</i> retina	4139-4147
Lustig, K. D., Kroll, K. L., Sun, E. E. and Kirschner, M. W. Expression cloning of a <i>Xenopus</i> T-related gene (<i>Xombi</i>) involved in mesodermal patterning and blastopore lip formation	4001-4012	Pettitt, J., Wood, W. B. and Plasterk, R. H. A. <i>cdh-3</i> , a gene encoding a member of the cadherin superfamily, functions in epithelial cell morphogenesis in <i>Caenorhabditis elegans</i>	4149-4157
Humphreys, R. C., Krajewska, M., Krnacik, S., Jæger, R., Weiher, H., Krajewski, S., Reed, J. C. and Rosen, J. M. Apoptosis in the terminal endbud of the murine mammary gland: a mechanism of ductal morphogenesis	4013-4022	Karavanova, I. D., Dove, L. F., Resau, J. H. and Perantoni, A. O. Conditioned medium from a rat ureteric bud cell line in combination with bFGF induces complete differentiation of isolated metanephric mesenchyme	4159-4167
Rehorn, K.-P., Thelen, H., Michelson, A. M. and Reuter, R. A molecular aspect of hematopoiesis and endoderm development common to vertebrates and <i>Drosophila</i>	4023-4031	Anderson, M. G., Certel, S. J., Certel, K., Lee, T., Montell, D. J. and Johnson, W. A. Function of the <i>Drosophila</i> POU domain transcription factor Drifter as an upstream regulator of Breathless receptor tyrosine kinase expression in developing trachea	4169-4178
Yu, K., Sturtevant, M. A., Biehs, B., François, V., Padgett, R. W., Blackman, R. K. and Bier, E. The <i>Drosophila</i> <i>decapentaplegic</i> and <i>short gastrulation</i> genes function antagonistically during adult wing vein development	4033-4044	Stennard, F., Carnac, G. and Gurdon, J. B. The <i>Xenopus</i> T-box gene, <i>Antipodean</i> , encodes a vegetally localised maternal mRNA that can trigger mesoderm formation	4179-4188
Yuh, C.-H., Moore, J. G. and Davidson, E. H. Quantitative functional interrelations within the <i>cis</i> -regulatory system of the <i>S. purpuratus</i> <i>Endo16</i> gene	4045-4056	Index of Authors and Titles	4189-4200
Whitworth, D. J., Shaw, G. and Renfree, M. B. Gonadal sex reversal of the developing marsupial ovary in vivo and in vitro	4057-4063	Subject Index	4201-4232